

U.S. Patent Application No. 09/694,855
Amendment After Final dated September 4, 2003
Reply to Final Office Action dated June 4, 2003

REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims further defines what the applicants regard as the invention. Full support for the amendment can be found throughout the present application, for instance, at pages 21, 26, 33, 36, 40, and 41. The amendment to the allowed claims is editorial in nature. The term "modified" has been removed since a modified pigment occurs when the organic group is attached. Therefore, no new questions of patentability should arise, nor does the amendment necessitate any further searching on the part of the Examiner. The amendment places the application in condition for allowance. At a minimum, the amendment places the application in a better condition for appeal. Accordingly, no questions of new matter should arise and entry of the amendment is respectfully requested.

Claims 1-29 are pending in this application.

At page 2 of the Office Action, the Examiner rejects claims 2 and 10 under 35 U.S.C. §102(b) as being anticipated by Drzaic (International Published Application No. WO 99/67678 A3). With respect to claim 2, the Examiner asserts that Drzaic describes means of addressing microencapsulated display media comprising an arrangement of particles, wherein an optical response results from the rotation of the particles in a fluid, wherein a portion of the particles have attached at least one organic group having an ionic group, ionizable group, or both. The Examiner further asserts that the arrangement of the particles is located in the visual display device or the display media. With respect to claim 10, the Examiner further asserts that the display media of Drzaic comprises a modified colored

U.S. Patent Application No. 09/694,855
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pigment and means to cause the controlled rotation of the elements to achieve the optical response. For the following reasons, this rejection is respectfully traversed.

Claims 2 and 10 both recite, in part, that a portion of the particles have directly attached at least one organic group having an ionic group, ionizable group, or both.

Drzaic relates to electronic displays and materials useful in fabricating such displays. According to page 10, lines 21-26 of Drzaic, the bichromal sphere typically comprises a positively charged hemisphere of a first color and a negatively charged hemisphere of a second color in a liquid medium. Upon application of an electric field across the sphere through a pair of electrodes, the sphere rotates and displays the color of one of the two hemispheres.

Additionally, according to page 15, lines 2-7, the particles used in electrophoretic displays may be organic or inorganic compounds, and they may either absorb or scatter light. The particles used in Drzaic further include scattering pigments, absorbing pigments, and luminescent particles. Drzaic also describes the possibility that the surface of the particle may be chemically modified to aid dispersion, to include surface charge, and to improve the stability of the dispersion. Drzaic does not teach or suggest that a portion of the particles have directly attached at least one organic group. According to Drzaic at page 23, lines 7-9, the surface modifiers include organic siloxanes, organohalogen silanes, and other functional silanes coupling agents. Drzaic does not teach or suggest the direct attachment of at least one alkyl group or at least one aromatic group to the particles. One skilled in the art by reading Drzaic can only conclude that the surface modifiers described at page 23, lines 6-9, include an OSi or an OTi group through which surface modifiers are attached to the particles. This is not an alkyl or

U.S. Patent Application No. 09/694,855
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aromatic group.

Hydrophobing agents, such as long chain alkyl and alkyl benzene sulphonic acids, fatty amines, or diamines and their salts or quarternary derivatives discussed in Drzaic at page 23, lines 10-12, are surfactants, which generally absorb to the surface of the particles. These compounds would not attach directly by way of the alkyl or aromatic group. Thus, claims 2 and 10 are different.

At page 23, lines 12 and 13, Drzaic states that "amphipathic polymers" can be covalently bonded to the particle surface. However, Drzaic does not teach or suggest how the amphipathic polymers are covalently bonded to the particles. One skilled in the art would reasonably believe that there would be a functionality group to anchor the amphipathic polymers to the particle surface. Therefore, Drzaic does not teach or suggest one portion of the particles having directly attached at least one organic group as recited in claims 2 and 10. Accordingly, the rejection should be withdrawn.

At page 3 of the Office Action, the Examiner rejects claims 18 and 19 under 35 U.S.C. §103(a) as being unpatentable over Drzaic as applied to claim 2 and in view of Mahmud et al. (U.S. Patent No. 6,534,569 B2). The Examiner asserts that Drzaic describes the means of addressing microencapsulated display media comprising an arrangement of particles, wherein an optical response results from the rotation of the particles in a fluid. The Examiner further asserts that Drzaic describes that a portion of the particles have attached at least one organic group having an ionic group, ionizable group, or both, and that the arrangement of particles is located in the visual display or the display media. The Examiner acknowledges that Drzaic fails to teach that the particle is a colored pigment and wherein the organic group includes at least one aromatic group, at least one C1-C100 alkyl

U.S. Patent Application No. 09/694,855
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group, or a mixture thereof. However, the Examiner asserts that within the same field of endeavor, Mahmud et al. describes polymers containing modified pigments and methods of preparing the same. The Examiner also asserts that Mahmud et al. teaches that the particle is a colored pigment, wherein the organic group includes at least one aromatic group, at least one C1-C100 alkyl group, or a mixture thereof. Accordingly, the Examiner concludes that it would have been obvious, at the time the invention was made, to a person having ordinary skill in the art to construct the particles having attached at least one organic group, wherein the particles are colored pigments, and wherein the organic group includes at least one aromatic group, at least one C1-C100 alkyl group, or a mixture thereof. For the following reasons, this rejection is respectfully traversed.

The present application was filed on October 24, 2000. Mahmud et al. issued on March 18, 2003, is based on a filing date of January 24, 2001, and claims the benefit of Provisional Patent Application No. 60/178,257 filed January 25, 2000. Therefore, Mahmud et al. can be applied as prior art only under 35 U.S.C. §102(e)/103(c). In view of 35 U.S.C. §103(c), Mahmud et al. cannot be used as a prior art reference in a rejection under 35 U.S.C. §103(c) given that Mahmud et al. and the present application are owned by the same assignee at the time of the respective inventions. See the recorded assignment in the present application and the face of the Mahmud patent. Accordingly, for this reason alone, this rejection should be withdrawn.

At page 4 of the Office Action, the Examiner indicates that claims 1, 3-9, 11-17, and 22-29 are allowed. The applicants and the undersigned are appreciative of the indication of allowable subject matter.

U.S. Patent Application No. 09/694,855
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In this Office Action, the Examiner makes no reference to claims 20 and 21 of the present application, except in the Office Action Summary. Accordingly, the applicants and the undersigned presume that as in the previous Office Action, claims 20 and 21 are objected to, but would be allowable if rewritten in independent form. The applicants and the undersigned are appreciative of the indication that claims 20 and 21 would be allowable if rewritten in independent form. The applicants believe that the comments set forth above will convince the Examiner that all of the claims are in condition for allowance.

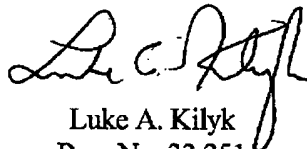
U.S. Patent Application No. 09/694,855
Amendment After Final dated September 4, 2003
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CONCLUSION

In view of the forgoing remarks, the applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.137 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


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